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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/378,398 °	08/20/1999	PATRICK TEO	04324.P018	9103

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EXAMINER

LEE, RICHARD J

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 04/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/378,398

Applicant(s)
Teo

Examiner
Richard Lee

Art Unit
2613



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-122 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 1-122 are subject to restriction and/or election requirement

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-37, drawn to a camera system comprising a viewfinder, classified in class 348, subclass 39.
 - II. Claims 38-53 and 111-122, drawn to a method for converting an image stored in a buffer and a method for combining a first frame and a second frame, classified in class 382, subclass 162.
 - III. Claims 54-95, drawn to a camera system comprising combining circuitry and motion estimation circuitry, classified in class 348, subclass 36.
 - IV. Claims 96-110, drawn to a camera system with a memory and display control circuitry with magnification factor selection, classified in class 348, subclass 240.99

2. The inventions are distinct, each from the other because:

Inventions Groups I, II, III, and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are Groups I, II, III, and IV. Group I involves a camera comprising a viewfinder displaying the second field of view when the camera lens is in the second orientation and displaying at least a portion of the first field of view at least partially composited with the second field of view, with view control circuitry for selecting a portion of the panoramic image to display. Group II involves a method for converting an image stored in a buffer as a first

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plurality of color values at a plurality of pixel locations in a first coordinate system, computing color values at pixel locations along an axis within the buffer, using non-linear transformation and a method for combining a first frame and a second frame comprising determining horizontal and vertical offsets and brightness and contrast parameters for chromatically aligning the first and second frames. Group III involves a camera comprising combining circuitry for at least partially combining the first frame and the second frame into a panoramic image, with motion estimation circuitry for determining horizontal and vertical offsets for spatially aligning the first and second frames, and stitching circuitry replacing color values at multiple pixel locations within the first frame with values that are weighted averages of color values in the first frame and color values in the second frame. Group IV involves a camera comprising a memory for storing data for a panoramic image, with display control circuitry responsive to movements of the camera, wherein at least one display control button includes at least one navigation panning button for navigation through the panoramic image in at least one direction, and wherein the display control circuitry selects a magnification factor for the selected portion of the panoramic image, wherein the display displays the selected portion of the panoramic image at the selected magnification factor.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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3. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Groups II, III, and IV, restriction for examination purposes as indicated is proper.
4. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).
5. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

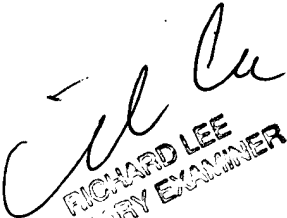
(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (703) 308-6612. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group customer service whose telephone number is (703) 306-0377.


RICHARD LEE
LEAD EXAMINER

Richard Lee/rl

4/4/03

